



US EPA RECORDS CENTER REGION 5



552857

ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415

International Specialists in the Environment

MEMORANDUM

DATE: _____

TO: William Messenger, Chief Pre-Remedial Unit

FROM: Jerome D. Oskvarek, FIT Office Manager

SUBJECT: Screening Site Inspection Transmittal Memorandum

CERCLIS Site Name: BROOK PARK LANDFILL

City: BROOK PARK

State: OHIO

U.S. EPA ID No.: 040901957905

SSID No.: NONE

TDD No.: F05-8708-022

PAN: F040 7305A

THIS DOCUMENT IS CONFIDENTIAL. Due to the predecisional nature of this memorandum, this memorandum and its attachments are not to be released. The draft/final (circle) Screening Site Inspection (SSI) report accompanies this transmittal memorandum and its attachments. Based on the information gathered during the SSI and other available information, the FIT has recalculated the preliminary and projected HRS 1 scores, and determined the HRS 2 factor value for the site. These scores and factor values are presented below.

HRS 1 PRELIMINARY AND PROJECTED SCORES

PRELIMINARY HRS SCORE BASED ON THE SCREENING SITE INSPECTION (SSI)
(This score is based on information from the screening site inspection.)

$S_H = \underline{0}$

$S_{FE} = \underline{0}$

$S_{DC} = \underline{0}$

PROJECTED HRS SCORE FOR A LISTING SITE INSPECTION (LSI)
(This score is based on the expected acquisition of information from the listing site inspection.)

$S_H = \underline{0}$

$S_{FE} = \underline{0}$

$S_{DC} = \underline{0}$

HRS 1 score worksheets are attached to this memorandum.

HRS 2 FACTOR VALUE

<u>Factor</u>	<u>Factor Value</u>	<u>Observed Human Exposure (X)</u>
Waste Characteristics	<u>50</u> (100)	
Air Pathway	<u>20</u> (100)	
Groundwater Pathway	<u>10</u> (100)	
Surface Water Pathway	<u>15</u> (100)	
On-site Pathway	<u>60</u> (100)	
TOTAL HRS 2 FACTOR VALUE	<u>169</u> (500)	

HRS 2 factor value worksheets are attached to this memorandum.

IMMEDIATE ACTION

In addition to the HRS related information, we have evaluated this site for the need for immediate removal action as a result of a substantial threat to either human health or the environment. (Select one)

 The site does present a threat which requires immediate removal action.

 X The site does not present a threat which requires immediate removal action.

RECOMMENDATIONS

Based on the HRS related information and the evaluation of the immediate removal threat, the FIT concludes from its activities the following (select one):

X

1. The HRS 1 scores are below 25.00; therefore, the site should be designated as a NFRAP facility.
2. The HRS 1 scores are equal to or exceed 25.00; however, due to extenuating circumstances (i.e., ongoing clean-up) the site should not be designated for LSI activities.
3. The HRS 1 scores are equal to or exceed 25.00. As a result, we recommend that the site be designated as a potential LSI candidate. The FIT anticipates that the following activities would be required during the LSI in order to establish a sufficient data base to successfully list the facility on the NPL.
 - a. Installation of monitoring wells.
 - b. Air sampling.
 - c. Further sampling of surface water.
 - d. Further waste characterization.
 - e. More extensive sampling of residential wells and municipal wells.
 - f. Collect additional soil samples.
 - g. Perform geophysics.
 - h. Conduct area survey.
 - i. Other: _____

COMMENTS

The FIT would like to make the following additional comments concerning the site.

1. NONE

2. _____

3. _____

4. _____

5. _____

0606:4

**SCREENING SITE INSPECTION
PRELIMINARY AND PROJECTED
HAZARD RANKING SYSTEM
REVISED SCORE WORKSHEETS**

Site Name: BROOK PARK LANDFILL (Cerclis Name)

(a.k.a.)

Address: 6388 KULTHOFF RD.

City/County/State/Zip: BROOK PARK, OHIO

Cerclis ID: OH D 981957905 SS ID: NONE

Prepared by: C. FLORCZAK, E&E Date: 5-31-88

Reviewed by: _____, E&E Date: _____

TDD: F05-2708-022 PAN: F0H0730SA

SCREENING SITE INSPECTION (SSI) PRELIMINARY HRS SCORE

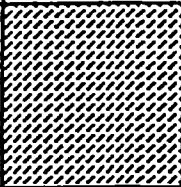
$S_M =$ 0 $S_{FE} =$ 0 $S_{DC} =$ 0

LISTING SITE INSPECTION (LSI) PROJECTED HRS SCORE

$S_M =$ 0 $S_{FE} =$ 0 $S_{DC} =$ 0

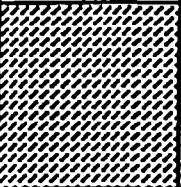
SCREENING SITE INSPECTION (SSI) PRELIMINARY HRS SCORE

(This score is based on information from the SSI.)

	S	S ²
Groundwater Route (S _{gw} =)	0	0
Surface Water Route (S _{sw} =)	0	0
Air Route (S _a =)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		0
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		0
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M$		0

LISTING SITE INSPECTION (LSI) PROJECTED HRS SCORE

(This score is based on the expected acquisition of information from the LSI.)

	S	S ²
Groundwater Route (S _{gw} =)	0	0
Surface Water Route (S _{sw} =)	0	0
Air Route (S _a =)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		0
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		0
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M$		0

SURFACE WATER ROUTE

SCREENING SITE INSPECTION (SSI) PRELIMINARY HRS SCORE						
(This score is based on information from the SSI.)						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Description	Ref. #	
1 Observed Release	0 45	x1				
If Observed Release scores 45 proceed to line 4						
If Observed Release scores 0 proceed to line 2						
2 Route Characteristics	Intervening Terrain			ADJACENT to		
	Facility	0 0 0 0 3	x1	3	USGS	
	Slope	0 1 1 2 3				
		0 1 2 2 3				
		0 2 2 3 3				
		0 2 3 3 3				
1-yr. 24 hr Rainfall	0 1 2 3	x1	2	2.2 in.	WP	
Distance to Nearest Surface Water	0 1 2 3	x2	6	ADJACENT	USGS	
Physical State	0 1 2 3	x1	1	SOLID	SI	
Total Route Characteristics Score			12			
3 Containment	0 1 2 3	x1	0	CLAY CAPPED	SI	
4 Waste Characteristics	Persistence					
	0	0 1 2 3				
Toxicity	0	0 0 0 0				
	1	3 6 9 12				
	2	6 9 12 15				
	3	9 12 15 18	x1	18	INORGANICS	
Haz. Waste Quantity	0 1 2 3 4 5 6 7 8	x1	1	PRESENT - QUANTITY UNKNOWN		
Total Waste Characteristics Score			19			
5 Targets	Surface Water Use					
	0 1 2 3	x3	6	RECREATION	USGS	
Dist. to Sensitive Environment	0 1 2 3	x2	2	~100 ACRE WETLAND ~2 mi FROM SITE	USGS	
	Distance to Water Intake Downstream					
	0	0 0 0 0 0				
	0	4 6 8 10				
Population Served	0	8 12 16 20				
	0	12 18 24 30				
	0	16 24 32 35				
	0	20 30 35 40	x1	0	USGS	
Total Targets Score			8			
6 If line 1 is 45, multiply 1 x 4 x 5						
If line 1 is 0, multiply 2 x 3 x 4 x 5						
7 Divide line 6 by 64,350 and multiply by 100						
S _{sw} =			0			

SURFACE WATER ROUTE

LISTING SITE INSPECTION (LSI) PROJECTED HRS SCORE					
(This score is based on the expected acquisition of information from the LSI.)					
Rating Factor	Assigned Value (Circle One)	Multi- plier	Score	Description	Ref. #
1 Observed Release	0 45	x1			
If Observed Release scores 45 proceed to line 4					
If Observed Release scores 0 proceed to line 2					
2 Route Characteristics	Intervening Terrain			Facil %	
	Facility	0 0 0 0 3	x1	3	ADJACENT
	Slope	0 1 1 2 3			USGS
		0 1 2 2 3			
		0 2 2 3 3			
		0 2 3 3 3			
1-yr. 24 hr Rainfall	0 1 2 3	x1	2	2.2 in.	WP
Distance to Nearest Surface Water	0 1 2 3	x2	6	ADJACENT	USGS
Physical State	0 1 2 3	x1	1	SOLID	SI
Total Route Characteristics Score			12		
3 Containment	0 1 2 3	x1	0	CLAY CAPPED	SI
4 Waste Characteristics	Persistence 0 1 2 3				
	Toxicity	0 0 0 0 0			
		1 3 6 9 12			
		2 6 9 12 15			
		3 9 12 15 18			
Haz. Waste Quantity	0 1 2 3 4 5 6 7 8	x1	18	INORGANICS	SI
Total Waste Characteristics Score			19		
5 Targets	Surface Water Use 0 1 2 3				
	Dist. to Sensitive Environment	0 1 2 3	x3	6	RECREATION
		Distance to Water Intake Downstream	x2	2	~ 100 ACRES WETLAND ~ 2 MI. FROM SITE
	Population Served	0 0 0 0 0			
		0 4 6 8 10			
		0 8 12 16 20			
		0 12 18 24 30			
		0 16 24 32 35			
		0 20 30 35 40			
Total Targets Score			8		
6 If line 1 is 45, multiply 1 x 4 x 5			0		
If line 1 is 0, multiply 2 x 3 x 4 x 5					
7 Divide line 6 by 64,350 and multiply by 100			S _{sw} =	0	

GROUNDWATER ROUTE

SCREENING SITE INSPECTION (SSI) PRELIMINARY HRS SCORE					
(This score is based on information from the SSI.)					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Description	Ref. #
1 Observed Release	0 45	x1	0		
If Observed Release scores 45 proceed to line 4 If Observed Release scores 0 proceed to line 2					
2 Route Characteristics				Aquifer Description:	
Depth to Aquifer of concern	0 1 2 3	x2	6	2 ft.	
Net Precipitation	0 1 2 3	x1	1	Precip. 5" NET Evap.	
Permeability of the Unsaturated Zone	0 1 2 3	x1	1	10 ⁻⁶ cm/sec	
Physical State	0 1 2 3	x1	1	SOLID WASTE	
Total Route Characteristics Score			9		
3 Containment	0 1 2 3	x1	3	NO LINER	
4 Waste Characteristics					
Persistence	0 1 2 3				
Toxicity	0 1 2 3	x1	18	LAB DATA	
Haz. Waste Quantity	0 1 2 3 4 5 6 7 8	x1	1	UNKNOWN-SOURCE	
Total Waste Characteristics Score			19		
5 Targets					
Groundwater Use	0 1 2 3	x3	0	NONE	
Distance to Nearest Well	0 1 2 3 4				
Population Served	0 1 2 3 4 5	x1	0	NONE	
Total Targets Score			0		
If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			0		
Divide line 6 by 57,330 and multiply by 100			S _{gw} = 0		

GROUNDWATER ROUTE

LISTING SITE INSPECTION (LSI) PROJECTED HRS SCORE					
(This score is based on the expected acquisition of information from the LLSI)					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Description	Ref. #
[1] Observed Release	0 45	x1	0		
If Observed Release scores 45 proceed to line [4] If Observed Release scores 0 proceed to line [2]					
[2] Route Characteristics				Aquifer Description:	
Depth to Aquifer of concern	0 1 2 3	x2	6	2 ft.	
Net Precipitation	0 1 2 3	x1	1	Precip. 5" NET = Evap.	
Permeability of the Unsaturated Zone	0 1 2 3	x1	1	10 ⁻⁶ cm/sec	
Physical State	0 1 2 3	x1	1	SOLID WASTE	
Total Route Characteristics Score			9		
[3] Confinement	0 1 2 3	x1	3	NO LINER	
[4] Waste Characteristics					
Persistence	0 1 2 3				
Toxicity	0 0 0 0 0 1 3 6 9 12 2 6 9 12 15 3 9 12 15 18	x1	18	LAB DATA	
Haz. Waste Quantity	0 1 2 3 4 5 6 7 8	x1	1	UNKNOWN - SOME	
Total Waste Characteristics Score			19		
[5] Targets					
Groundwater Use	0 1 2 3	x3	0	NONE	
Distance to Nearest Well	0 0 0 0 0 0 4 6 8 10 1 0 8 12 16 20 2 0 12 18 24 30 3 0 16 24 32 35 4 0 20 30 35 40 5				
Population Served		x1	0	NONE	
Total Targets Score			0		
[6]	If line [1] is 45, multiply [1] x [4] x [5] If line [1] is 0, multiply [2] x [3] x [4] x [5]			0	
[7]	Divide line [6] by 57,330 and multiply by 100			S _{gw} = 0	

AIR ROUTE

SCREENING SITE INSPECTION (SSI) PRELIMINARY HRS SCORE																													
(This score is based on information from the SSI.)																													
Rating Factor	Assigned Value (Circle One)	Multi- plier	Score	Description	Ref. #																								
1 Observed Release	0 45	x1																											
If line 1 is 0, the $S_a = 0$. Enter on line 5 If line 1 is 45, then proceed to line 2																													
2 Waste Characteristics																													
Reactivity & Incompatibility	0 1 2 3	x1																											
Toxicity	0 1 2 3	x3																											
Haz. Waste Quantity	0 1 2 3 4 5 6 7 8	x1																											
Total Waste Characteristics Score																													
3 Targets																													
Dist to Population Population within 4-mile Radius Pop.		<table border="1"> <tr><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>9</td><td>12</td><td>15</td><td>18</td></tr> <tr><td>12</td><td>15</td><td>18</td><td>21</td></tr> <tr><td>15</td><td>18</td><td>21</td><td>24</td></tr> <tr><td>18</td><td>21</td><td>24</td><td>27</td></tr> <tr><td>21</td><td>24</td><td>27</td><td>30</td></tr> </table>		0	0	0	0	9	12	15	18	12	15	18	21	15	18	21	24	18	21	24	27	21	24	27	30		
0	0	0	0																										
9	12	15	18																										
12	15	18	21																										
15	18	21	24																										
18	21	24	27																										
21	24	27	30																										
Distance to Sensitive Environment	0 1 2 3	x2																											
Land Use	0 1 2 3	x1																											
Total Targets Score																													
4 Multiply 1 x 2 x 3																													
5 Divide line 4 by 35,100 and multiply by 100			$S_a = 0$																										

THIS SITE WAS ADEQUATELY COVERED WITH A CLAY CAP (APPROXIMATELY 3 feet deep) IN THE FALL OF 1987. NO AIR MONITORING WAS PERFORMED.

AIR ROUTE

LISTING SITE INSPECTION (LSI) - PROJECTED HRS SCORE					
(This score is based on the expected acquisition of information from the LSI.)					
Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Description	Ref. #
1 Observed Release	0 45	x1			
If line 1 is 0, the $S_a=0$. Enter on line 5 If line 1 is 45, then proceed to line 2					
2 Waste Characteristics					
Reactivity & Incompatability	0 1 2 3	x1			
Toxicity	0 1 2 3	x3			
Haz. Waste Quantity	0 1 2 3 4 5 6 7 8	x1			
Total Waste Characteristics Score					
3 Targets					
Dist to Population					
0 0 0 0					
Population within 4-mile Radius					
Pop. 9 12 15 18					
12 15 18 21					
15 18 21 24					
18 21 24 27					
21 24 27 30					
Distance to Sensitive Environment	0 1 2 3	x2			
Land Use	0 1 2 3	x1			
Total Targets Score					
4 Multiply 1 x 2 x 3					
5 Divide line 4 by 35,100 and multiply by 100			$S_a = 0$		

THIS SITE WAS ADEQUATELY COVERED WITH A CLAY CAP (APPROXIMATELY 3 feet deep) IN THE FALL OF 1987. NO AIR MONITORING IS ANTICIPATED

FIRE AND EXPLOSION

SCREENING SITE INSPECTION (SSI) PRELIMINARY HRS SCORE						
(This score is based on information from the SSI.)						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Description	Ref. #	
1 Containment	0 3	x1				
2 Waste Characteristics						
Direct Evidence	0 3	x1				
Ignitability	0 1 2 3	x1				
Reactivity	0 1 2 3	x1				
Incompatability	0 1 2 3	x1				
Haz. Waste Quantity	0 1 2 3 4 5 6 7 8	x1				
	Total Waste Characteristics Score					
3 Targets						
Dist. to Nearest Pop.	0 1 2 3 4 5	x1				
Dist. to Nearest Bldg.	0 1 2 3	x1				
Dist. to Sensitive Env.	0 1 2 3	x1				
Land Use	0 1 2 3	x1				
Pop. Within 2 miles	0 1 2 3 4 5	x1				
Bldgs. Within 2 miles	0 1 2 3 4 5	x1				
	Total Targets Score					
4 Multiply 1 x 2 x 3						
5 Divide line 4 by 1,440 and multiply by 100			S _{FE} = 0			

A BROOK PARK FIRE OFFICIAL HAS ADVISED THAT THE SITE IS NOT A FIRE/EXPLOSION HAZARD. NO READINGS ABOVE BACKGROUND WERE OBTAINED ON AN EXPLOSIMETER DURING A SITE INSPECTION.

FIRE AND EXPLOSION

LISTING SITE INSPECTION (LSI) PROJECTED HRS SCORE						
(This score is based on the expected acquisition of information from the LSI.)						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Description	Ref. #	
1 Containment	0 3	x1				
2 Waste Characteristics						
Direct Evidence	0 3	x1				
Ignitability	0 1 2 3	x1				
Reactivity	0 1 2 3	x1				
Incompatability	0 1 2 3	x1				
Flaz. Waste Quantity	0 1 2 3 4 5 6 7 8	x1				
	Total Waste Charactoristics Score					
3 Targets						
Dist. to Nearest Pop.	0 1 2 3 4 5	x1				
Dist. to Nearest Bldg.	0 1 2 3	x1				
Dist. to Sensitive Env.	0 1 2 3	x1				
Land Use	0 1 2 3	x1				
Pop. Within 2 miles	0 1 2 3 4 5	x1				
Bldgs. Within 2 miles	0 1 2 3 4 5	x1				
	Total Targets Score					
4 Multiply 1 x 2 x 3						
5 Divide line 4 by 1,440 and multiply by 100			$S_{FE} = 0$			

A BROOK PARK FIRE OFFICIAL HAS ADVISED THAT THE SITE IS NOT A FIRE / EXPLOSION HAZARD. NO READINGS ABOVE BACKGROUND WERE OBTAINED ON AN EX PLOSI-METER DURING A SITE INSPECTION

DIRECT CONTACT

SCREENING SITE INSPECTION (SSI) PRELIMINARY HRS SCORE					
(This score is based on information from the SSI.)					
Rating Factor	Assigned Value (Circle One)	Multi- plier	Score	Description	Ref. #
1 Observed Incident	0 45	x1	0	NONE REPORTED OR OBSERVED	
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2					
2 Accessibility	0 1 2 3	x1	3	INADEQUATE FENCE	
3 Containment	(0) 15	x1	0	ADEQUATE CAP	
4 Waste Characteristics					
Toxicity	0 1 2 (3)	x5	15	LAB DATA	
5 Targets					
Pop. Within 1 mile	0 1 2 3 4 (5)	x4	20	~14,100	
Dist. to Crit. Habitat	(0) 1 2 3	x4	0	NONE	
Total Targets Score			20		
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			0		
7 Divide line 6 by 21,600 and multiply by 100			$S_{DC} =$	0	

DIRECT CONTACT

LISTING SITE INSPECTION (LSI) PROJECTED HRS SCORE					
(This score is based on the expected acquisition of information from the LSI.)					
Rating Factor	Assigned Value (Circle One)	Multi- plier	Score	Description	Ref. ##
1 Observed Incident	0 45	x1	0	NONE REPORTED OR OBSERVED	
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2					
2 Accessibility	0 1 2 3	x1	3	INADEQUATE FENCING	
3 Containment	0 15	x1	0	ADEQUATE CAP	
4 Waste Characteristics					
Toxicity	0 1 2 3	x5	15	LAB DATA	
5 Targets					
Pop. Within 1 mile	0 1 2 3 4 5	x4	20	14,100	
Dist. to Crit. Habitat	0 1 2 3	x4	0	NONE	
Total Targets Score			20		
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			0		
7 Divide line 6 by 21,600 and multiply by 100			$S_{DC} = 0$		

HRS 2- FACTOR VALUE

<u>Factor</u>	<u>Factor Value</u>	<u>Observed Human Exposure (X)</u>
Waste Characteristics	<u>50</u> (100)	
Air Pathway	<u>28</u> (100)	
Groundwater Pathway	<u>10</u> (100)	
Surface Water Pathway	<u>15</u> (100)	
On-site Pathway	<u>66</u> (100)	
TOTAL HRS 2 FACTOR VALUE	<u>169</u> (500)	

WASTE CHARACTERISTICS

	Yes (x)	Reference	Factor Value
1. (a) Are CONTAINERS open, unsealed, or non-intact?	_____	_____	_____ (5)
(b) Is there evidence of contaminant migration away from the containers?	_____	_____	_____ (5)
(c) Is the source(s) unlined or does it have unsound diking?	_____	_____	_____ (5)
2. (a) Does the LANDFILL have exposed waste, <u>or</u> is the landfill uncovered, <u>or</u> is the landfill covered with contaminated soil, non-intact cover or cover less than 1 inch?	_____	_____	_____ (5)
(b) Is there evidence of contaminant migration away from the source?	X	SSI	5 (5)
(c) Is there an absence of a liner, a run-on or runoff management system or leachate collection and removal system?	X	SSI	5 (5)
3. (a) Is the SURFACE IMPOUNDMENT wet and non-enclosed?	_____	_____	_____ (5)
(b) Is there evidence of contaminant migration away from the source?	_____	_____	_____ (5)
(c) Is there no liner or diking?	_____	_____	_____ (5)
4. (a) Is the PILE uncovered, or is the pile covered with contaminated soil, non-intact cover or cover less than 1 inch?	_____	_____	_____ (5)
(b) Is there an absence of a functioning run-on or runoff management system or leachate collection system?	_____	_____	_____ (5)
(c) Is there an absence of a liner?	_____	_____	_____ (5)
5. Only answer <u>highest</u> factor value for the following questions:			
(a) Is constituent data available for waste?	X	SSI	10 (10)
(b) Is waste quantity as deposited information available?	_____	_____	_____ (8)
(c) Is disposal volume known?	_____	_____	_____ (4)
(d) Is disposal area known?	_____	_____	_____ (2)

...Continued

WASTE CHARACTERISTICS (Continued)

6. Complete the table for all sources at the site. Calculate Waste Quantity score and record summation to a maximum value of 30.

Source	Surface Area (ft ²)	+	Divisor	=	Waste Quantity Score
Pile		+	85	=	
Drums/Non-drum Container		+	233	=	
Surface Impoundment		+	375	=	
Land Treatment		+	27,000	=	
Landfill	3,049,200	+	85,666	=	35.6
Contaminated Soil		+	1,125,000	=	

Total 35.6 30 (30max)

Total Waste Characteristics 50 (100)

AIR PATHWAY

- | | <u>Yes</u>
(x) | <u>Reference</u> | <u>Factor</u>
<u>Value</u> |
|--|-------------------|------------------|-------------------------------|
| 1. Only assign factor value for (a) or (b), choosing the <u>higher</u> value: | | | |
| (a) Is there a residence or regularly occupied building between 0 to 1/8 mile from a potential source(s)? | X | SS1 | <u>25</u> (25) |
| (b) Is there a residence or regularly occupied building between 1/8 to 2 miles from a potential source(s)? | _____ | _____ | _____ (5) |
| 2. Complete (a) and (b) and assign the <u>higher</u> factor value: | | | |
| (a) If documented contamination of air, answer yes and assign factor value of 75. | _____ | _____ | _____ (75) |
| (b) Calculate potential population and assign factor value as given below: | _____ | _____ | _____ |

SITE IS NOW ADEQUATELY COVERED

Distance (mile)	Population	x	Distance Weighting Factor	=	Subtotal
Onsite	0	x	1.682	=	0
0-1/4	225	x	0.323	=	73
1/4-1/2	279	x	0.056	=	16
1/2-1	2186	x	0.017	=	37
1-2	7508	x	0.005	=	38
2-3	15276	x	0.003	=	46
3-4	38711	x	0.002	=	77

Total 287 $\times \frac{1}{100} =$ 3 (75max)

Total Air Pathway Value 28 (100)

GROUNDWATER PATHWAY

- | | <u>Yes</u>
(x) | <u>Reference</u> | <u>Factor</u>
<u>Value</u> |
|--|-------------------|------------------|-------------------------------|
| 1. Is the depth to the aquifer of concern less than 800 feet? | <u>X</u> | <u>WP</u> | <u>5</u> (5) |
| 2. (a) Within 2 miles of the site, is the geologic material between the waste and the aquifer of concern composed predominantly of sands, gravels, sandstone, limestone or dolomite? | <u>X</u> | <u>SSI</u> | <u>5</u> (5) |
| (b) Within 2 miles of the site, is there evidence of a low hydraulic conductivity layer (10^{-6} to 10^{-9}) between the waste and the aquifer of concern? | <u>N/A</u> | | ____ (-15) |
| 3. Only assign factor value for (a) or (b), choosing the <u>higher</u> value: | | | |
| (a) is there a drinking water well(s) in the aquifer of concern or a more shallow unit 0 to 1/2 mile from the source(s)? | <u>N/A</u> | | ____ (20) |
| (b) Is there a drinking water well(s) in the aquifer of concern or a more shallow unit 1/2 to 2 miles from the source(s)? | <u>N/A</u> | | ____ (5) |
| 4. Is the aquifer of concern a karst unit? | <u>N/A</u> | | ____ (10) |
| 5. Is the aquifer of concern a sole source aquifer? | <u>N/A</u> | | ____ (5) |
| 6. Complete (a) and (b), and assign the <u>higher</u> factor value: | | | |
| (a) If documented contamination of drinking water wells with TCL/TAL compounds, answer yes and assign a factor value of 50. | | | ____ (50) |
| (b) Calculate potential population and assign factor value as given below: | | | ____ |

CLEVELAND AREA DRAWS WATER FROM LAKE ERIE

Distance (mile)	Population	x	Distance Weighting Factor	=	Subtotal
0-1/4		x	0.25	=	
1/4-1/2		x	0.16	=	
1/2-1		x	0.08	=	
1-2		x	0.05	=	
2-3		x	0.03	=	
3-4		x	0.02	=	

Total _____ x 1 = _____ (50max)

100

TOTAL GROUNDWATER PATHWAY VALUE 10 (100)

SURFACE WATER PATHWAY

- | | Yes
(x) | Reference | Factor
Value |
|--|------------|-----------|-----------------|
| 1. Does site lie within a 100-year or less floodplain? | X | USGS TOPO | 5 (5) |
| 2. Is there contamination attributable to the site at a drinking water intake? | | | (20) |
| 3. Is this a sole-source surface water supply? | | | (10) |
| 4. Is a fishery (production) contaminated as a result of the site, or is a fishery potentially impacted within 15 miles as a result of the site? | | | (5) |
| 5. Is a recreation area contaminated as a result of the site, or is a recreation area potentially impacted within 15 miles as a result of the site? | X | USGS TOPO | 5 (5) |
| 6. Is a sensitive environment contaminated as a result of the site, or is a sensitive environment potentially impacted within 15 miles as a result of the site? | X | USGS TOPO | 5 (5) |
| 7. Complete (a) and (b), and assign the <u>higher</u> factor value: | | | |
| (a) If there is documented contamination of a surface water intake with TCL/TAL compounds within 15 miles as a result of the site, answer yes and assign a factor value of 50. | | | (50) |
| (b) Calculate potential population and assign a factor value as given below: | | | |

NO INTAKES WITHIN THREE MILES OF SITE

Intake	Population	x	* Dilution Weighting Factor	=	Subtotal
#1		x		=	
#2		x		=	
#3		x		=	
		x		=	
		x		=	
		x		=	

* Use table on following page.

Total _____ x 1 = _____ (50max)
100

TOTAL SURFACE WATER PATHWAY VALUE

15 (100)

SURFACE WATER PATHWAY

TABLE
DILUTION WEIGHTING FACTORS

Surface Characteristic	Average Annual Flow in Cubic Feet per Second (CFS)	Assigned Value
Minimum perennial stream	Less than 5 cfs	2.5
Small to moderate stream	5 to 50 cfs	0.25
Moderate to large stream	Greater than 50 to 500 cfs	0.025
Large streams to rivers	Greater than 500 to 10,000 cfs	0.0013
Major rivers	Greater than 10,000 cfs	0.0003
Ocean or the Great Lakes	Not applicable	0.0003
Mixing zone of quiet flowing rivers	Greater than 50 cfs	0.125
Lakes, reservoirs	Add and average CFS of tributaries flowing into lake/reservoir.	Assign value to calculated CFS figure using above factors.

ON-SITE PATHWAY

- | | Yes
(x) | Reference | Factor
Value |
|---|------------|-------------|-----------------|
| 1. Is the site located in an area where people live or go to school within 1 mile of the source(s)?
*If answer <u>NO</u> to Question 1, do not proceed with the remaining questions. | <u>X</u> | <u>USGS</u> | <u>10</u> (10) |
| 2. Is there known contamination from the site on residential or school property? | _____ | _____ | _____ (15) |
| 3. Is site public use land or widely used land without barriers? | _____ | _____ | _____ (10) |
| 4. Complete (a), (b) and (c), and assign the highest factor value:
Which of the following are adjacent to site/source(s) or contaminated from the site? | | | |
| (a) Schools, day-care | | | _____ (15) |
| (b) Parks, playgrounds, residences | <u>X</u> | <u>TOPO</u> | <u>10</u> (10) |
| (c) National park, federal endangered species, other public-use lands. | _____ | _____ | _____ (5) |
| 5. Calculate population within 1 mile of the site, and assign factor value as given below: | | | |

Distance (mile)	Population	x	Distance Weighting Factor	=	Subtotal
0-1/4	225	x	0.05	=	11.25
1/4-1/2	279	x	0.025	=	6.98
1/2-1	2186	x	0.0125	=	27.33

Total 46 46 (50max)

TOTAL ON-SITE PATHWAY VALUE 66 (100)